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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/571,281	03/09/2006	Jens Makuth	2003P13890WOUS	6057

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SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
170 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

EXAMINER
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NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

MAIL DATE	DELIVERY MODE
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04/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,281	<b>Applicant(s)</b> MAKUTH ET AL.	
	<b>Examiner</b> TUYEN T. NGUYEN	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3-9-2006</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 17-19 and 22-26 rejected under 35 U.S.C. 102(e) as being anticipated by Kojima et al. [US 6,950,633 B2].

Kojima et al. discloses a rotary transformer [figures 1-4] comprising:

- a fixed part [5];
- a rotating part [3] rotating about the fixed part;
- a common virtual rotational axis shared by the rotating and fixed parts; and
- an inductive element [2, 4] for transmitting data, wherein the inductive element comprising first and second inductive elements [2, 4] for bidirectional data transmission and concentrating a magnetic field, the first inductive element configured to transmit data and the second inductive element configured to receive data, or vice versa.

Regarding claims 24 and 17-18, Kojima et al. discloses the first inductive element arranged adjacent to the second inductive element.

Regarding claims 25 and 19, Kojima et al. discloses the first and second inductive elements being coaxially nested.

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Regarding claim 26, Kojima et al. further discloses a decoupling device [6] arranged between the first and second inductive elements.

Claims 15-16 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kiedrowski [US 4,754,180].

Kiedrowski discloses rotary transformer [figure 5] comprising:

- a fixed part [114];
- a rotating part [118];
- an inductive element for transmitting data, wherein the inductive element comprising first and second inductive elements [116, 117] for bidirectional data transmission and concentrating a magnetic field, the first inductive element configured to transmit data and the second inductive element configured to receive data, or vice versa;
- a common virtual rotational axis shared by the rotating and fixed parts; and
- a housing [figure 5] having a duct enclosing the virtual rotational axis.

Regarding claim 20, Kiedrowski discloses at least one of the first and second inductive elements/coils is in the form of toroidal.

Claims 15, 17 and 21, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohji et al. [US 5,412,366] or Jin et al. [EPO 0 926 690 A1].

Ohji et al. discloses a rotary transformer comprising:

- a fixed part [11];
- a rotating part [figure 11A];
- an inductive element for transmitting data, wherein the inductive element comprising first and second inductive elements [4] for bidirectional data transmission and concentrating a

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magnetic field, the first inductive element configured to transmit data and the second inductive element configured to receive data, or vice versa; and

- a common virtual rotational axis shared by the rotating and fixed parts.

Regarding claims 17 and 21, Ohji et al. discloses first and second coils [4] formed of planar coil.

Jin et al. discloses a rotary transformer comprising:

- a fixed part [2 or 4];
- a rotating part [4 or 2];

- an inductive element for transmitting data, wherein the inductive element comprising first and second inductive elements [3, 5] for bidirectional data transmission and concentrating a magnetic field, the first inductive element configured to transmit data and the second inductive element configured to receive data, or vice versa; and

- a common virtual rotational axis shared by the rotating and fixed parts.

Regarding claims 17 and 21, Jin et al. discloses first and second coils [3, 5] formed of planar coil.

Regarding claim 29, Ohji et al. or Jin et al. discloses the rotary transformer forms one integrated unit.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohji et al. or Jin et al. in view of Esser et al. [US 5,814,900].

Ohji et al. or Jin et al. discloses the instant claimed invention except for the rotary transformer *configured to transmit data according to a bus protocol*.

Esser et al. discloses a rotational transformer [A, figure 21] configured to transmit data according to a bus protocol.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to use the rotary transformer of Ohji or Jin et al. to transmit data according to a bus protocol, as suggested by Esser et al., for the purpose of transmitting data in a bus protocol.

Regarding claim 28, Fast Ethernet protocol is a known bus protocol [networking].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is (571)272-1996. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TUYEN T NGUYEN/  
Primary Examiner, Art Unit 2832